

# BARG Newsletter



*Ballarat Amateur Radio Group Inc. #6953T*  
*February 2024 Monthly Newsletter*



## **POST HAMVENTION 2024 EDITION**

**Next Meeting General BARG inc**  
**11:00am, Saturday 24<sup>th</sup> February 2024**  
**At the Airport - All Welcome**

Contacting us

[BARG@BARG.ORG.AU](mailto:BARG@BARG.ORG.AU)

We're on the web.

[www.barg.org.au](http://www.barg.org.au)

[https://twitter.com/vk3\\_barg](https://twitter.com/vk3_barg)

<https://www.facebook.com/groups/VK3BML/>

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Times and dates of nets as below

**Club Nets: VHF NET:** Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

**HF NET:** Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

**6m NET:** Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

**LINKED REPEATERS:** The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.grz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.



## President's Report February 2024



Hamvention came and went with an abundance of people about 300 – 350 through the gate including traders. It was a busy day for a lot of the members who had opted to help to setup, on the day and clean up after the event. Thank you to all that volunteered their time in the lead up and on the day. We need more volunteers at the end of the day to assist in cleaning up and moving the tables that belong to the Polocrosse Club back into the venue.

Planning for next year is already underway and discussions are continuing to what and how we do things next year. The date for next year has not been set fully but should be either the first or second weekend in February next year.

John Moyle Field Day is coming up on the 16<sup>th</sup> and 17<sup>th</sup> of March and the club call sign normally gets a run for this on the Saturday for a few hours. A location has already been suggested as Mount Innes near Buninyong. If you are interested in coming along let me know. I will mention this at the General meeting on the 24<sup>th</sup> of February.

Club rooms, there is a lot of work and tidying that needs to be done in the clubrooms. I have been out there most Saturdays as of this year. The workshop area is now a bit tidier, and the fridge will not try and say hello to you anymore when you open the door, someone was trying to create a new life form and kept closing the door when the fridge was not turned on. If you want to help at any stage and have a free Saturday morning, I am normally at the clubrooms from about 9am and will happily assign you a task or if we end up with the numbers, we tackle a bigger job as a team.

There is a lot of components and equipment back on the tables at the clubrooms it is what is left over from the Club Table at Hamvention and some that did not make it to the Hamvention. Do not just take any of it, components if you can use then yes take but please tell a committee member that you are. Also, any pieces of equipment please make a reasonable offer for it. There are still a few radios available, I should have by the time the newsletter comes out circulated the a list of available left over items that are available to club members only.

That is, it for this month.

73's Ben VK3NRD

## The Next BARG General Meeting 11:00am, Saturday February 24<sup>th</sup> 2024

### BARG inc. OFFICE BEARERS

|                 |                        |                 |                          |
|-----------------|------------------------|-----------------|--------------------------|
| President       | Ben Daniel VK3NRD      | Ordinary Member | Tom George VK3DMK        |
| Vice President  | Colin Consiglio VK3NCC | Ordinary Member | Colin Consiglio VK3NCC   |
| Secretary       | Peter Westgarth VK3APW | Ordinary Member | Doug Ellery VK3DRE       |
| Treasurer       | Chris Huggins VK3QY    | Ordinary Member | David Martin VK3KQT      |
| Ordinary Member | Craig Cook VK3KG       | Ordinary Member | Lachlan Macdonald VK3ALM |
| Ordinary Member | Ian Fairweather VK3YFD | Ordinary Member | Mal White VK3OAK         |



## Scenes from a Hamvention

Where you at our BARG 2024 Hamvention?

Are you in any of these pictures? (Sorry no prizes)







Contributions from, Andrew VK3FS, Nik VK3BA, Andrew VK3AS, Peter VK3PTM and others, THANKYOU, Tom VK3DMK.



# ICOM IC905 AND MICROWAVE EQUIPMENT DISPLAY BARG HAMVENTION 2024

What started out as a small idea late last year to put on a small microwave display to help promote and hopefully attract some new blood to microwave operations, quickly grew in size, thanks to offers from Icom Australia, Amateur Radio Victoria and along with more display equipment from Mick VK3CH from Doncaster and Iain VK5ZD from Adelaide.

It was also the first time in Australia that the proposed Icom CX-24G 24GHz module for the IC-905 was shown. Iain VK5ZD using his 24GHz transverter, made a two-way contact with the new Icom CX-24G. Some of this was captured by Andrew VK3FS (from Mt Martha) who bought along his professional camera gear.



We were thankful that the organisers gave us a great location in the shed with an open roller door facing into a clear area outside which soon became our microwave test range, reflecting off the Colourbond fence next door.

Despite the warm weather, I thought the crowd and trader attendance was excellent. On the microwave display tables, we had a very good response and lots of interest. We also premiered the new microwave recruitment video produced by Andrew VK3FS – it was later released to the public via YouTube the next day.



Another great highlight and surprise were that Andrew VK3FS overnight produced a quick 3min review video of the BARG Hamvention which has been very well received – I recommend to the Hamvention committee that they use this video as an excellent promotion for future

Hamventions. The club did an excellent job with the whole day, including the layout inside & out, as well as the coffee & BBQ catering. Well done to the club for such an excellent day!

Thanks goes to Hiro from Icom, Tony VK3XV from Amateur Radio Vic, Tim VK3TIM and Iain VK5ZD – they were all kept very busy for the day.

Cheers, Nik Presser VK3BA

**BARG would like thank Nik, VK3BA, Hiro from Icom, Tony VK3XV from Amateur Radio Vic, Tim VK3TIM and Iain VK5ZD for contributing to a very saucerful and hope they did well and will be back next year.**

# IC-905

VHF UHF SHF | ALL-MODE TRANSCEIVER

**INDUSTRY  
FIRST**

144 / 430 (440) / 1200 / 2400 / 5600 MHz / 10 GHz\*

\* CX-10G required



Controller ▲



RF Module ▲

# IC-PW2

HF/50 MHz 1 kW LINEAR AMPLIFIER



**Amateur Radio**



**Victoria**





## VHF and Above for February 2024

It's been a while since submitting a report on this topic however over the past month there has been some interesting events worth reporting. Whilst most of us are aware of the lift in the use of digital mode FT8 particularly on 6mx there have been some interesting uses of this mode along with other digital modes on some of the higher VHF/UHF bands as propagation indicators that have led to contacts using SSB.

We talk about location/location, and this reports just that. Steve VK3ZAZ has clearly shown that his location in Hamilton has worked very well for him but very frustrating for others when it comes to VHF DX into Western Australia over the past few weeks.

With all the enthusiasts straining their ears for that elusive SSB qso into VK6 to hear that signals are falling out of the air into the Hamilton area in VK3 keeps us up all hours hoping for that elusive contact.

Below is an extract of what Steve has been able to achieve using a variety of modes and bands into a range of different locations in VK6.

|                         | Call sign Worked | Date/Time           | Band | Mode | Freq      | QSL |
|-------------------------|------------------|---------------------|------|------|-----------|-----|
| <a href="#">Details</a> | VK3ZAZ VK6JR     | 2024-02-11 23:22:00 | 2M   | FT8  | 144.32000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6ZE/P   | 2024-02-11 23:16:00 | 2M   | FT8  | 144.32000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6NI     | 2024-02-11 23:05:00 | 2M   | FT8  | 144.32000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6CPU    | 2024-02-11 22:47:00 | 2M   | SSB  | 144.10000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6CPU    | 2024-02-11 22:11:00 | 2M   | FT8  | 144.32000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6CPU/P  | 2024-02-11 21:50:00 | 70CM | SSB  | 432.10000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6ZE     | 2024-02-11 21:40:00 | 2M   | SSB  | 144.15000 |     |
| <a href="#">Details</a> | VK3ZAZ VK3DAI    | 2024-02-11 20:55:00 | 2M   | SSB  | 144.10000 |     |
| <a href="#">Details</a> | VK3ZAZ VK7DC     | 2024-02-11 20:50:00 | 2M   | SSB  | 144.10000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6VOX    | 2024-02-11 20:30:00 | 2M   | SSB  | 144.10000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6TQ     | 2024-02-10 22:30:00 | 2M   | SSB  | 144.10000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6CPU/P  | 2024-02-10 21:10:00 | 2M   | SSB  | 144.10000 |     |
| <a href="#">Details</a> | VK3ZAZ VK6CPU/P  | 2024-02-10 07:34:00 | 2M   | FT8  | 144.32000 |     |

I can report that some others including myself did manage to work VK6CPU/p and VK6HV on SSB at level of 5x1. My CW was also heard by stations south of Perth and North West of Albany by VK6VOX however the levels were not good enough for SSB.

Whilst some of us a not fans of digital modes they do however provide good propagation indicators with WSPR and JT modes being able to be decoded at levels down to -30dB. FT8 is not far behind. As a comparison a test I did with VK7MO around 20 years ago showed I could receive CW at -14dB and SSB at -6dB. I think these figures indicate that advantages of digital modes.

Although I struggled a bit with terrestrial VHF one evening I had 5 contacts into Europe via 2mx EME where my best received signal was at -9dB which was very clear from the speaker of my radio.

Has anyone had a listen for the Japanese beacon on UHF 437.41MHz? I did have a listen when the moon was at 5 deg elevation in the Western sky using a 26 elements 432 yagi with no luck. I will keep listening from time to time as who knows it just may happen.

Till next time 73 de VK3AXH



## VK3PWG & VK3OAK Overseas DX'pedition

VK3OAK (Mal) and VK3PWG (Pete) are heading away on an overseas dxpedition! While it might be overseas, it's not international. Well not unless you think VK7 is really another country. We're heading down to King Island! We'll be there from Monday 26<sup>th</sup> of February through to Friday 1<sup>st</sup> of March.

In addition to cream, cheese and golf, King Island is home to fifteen WWFF parks, one Sota summit and of course is also an Island in the Islands On The Air program. Our goal will be to have 44 contacts from as many parks as we can, and maybe 10 from the rest. We'll also try to get four from the summit which will qualify each of those locations in the WWFF, VKFF and SOTA programs.

We'll also have a go at joining the club's nets. 80M should be okay. Not sure how much success we'll have with the 2m net though.

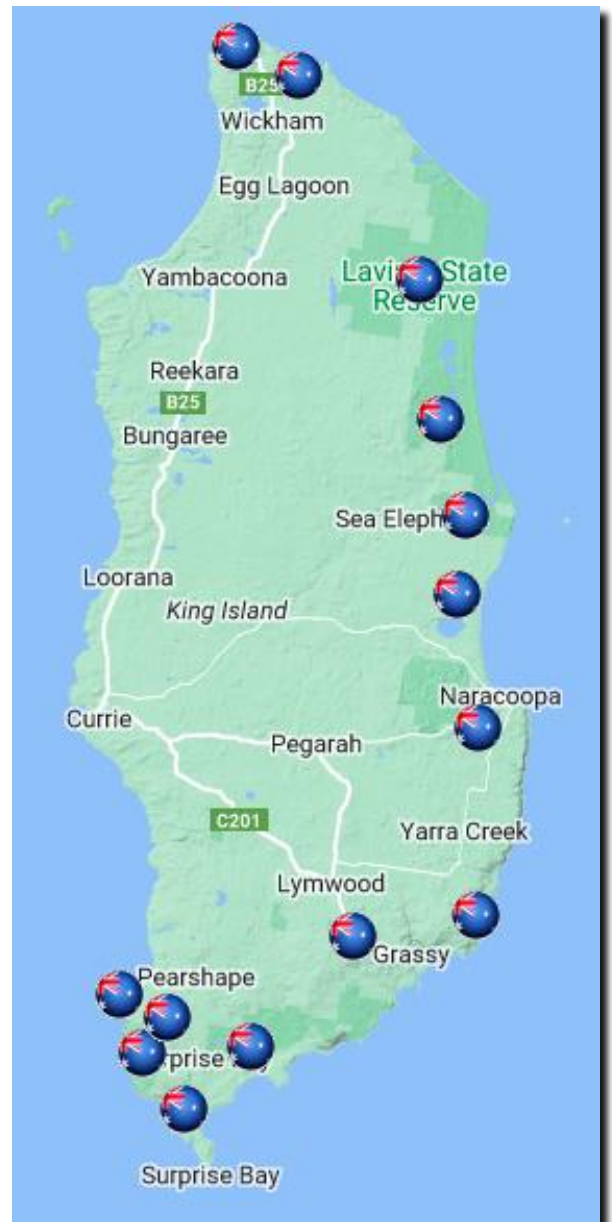
We'll typically be running 10 watts. That should be enough as long as HF conditions are okay.

It'd be great to get lots of BARG members in the log. We'll be working on or around **7.144** or **14.315** MHz during the day. Activations will be spotted on parksnparks.org.

Unlike the more serious dxpeditons, there's no special call signs, websites or QSL cards.

There's no requirement for the chaser / hunter to log anything. So, keep an ear out for us, and give us a call when we're there. Every contact will help.

73 Mal & Pete.



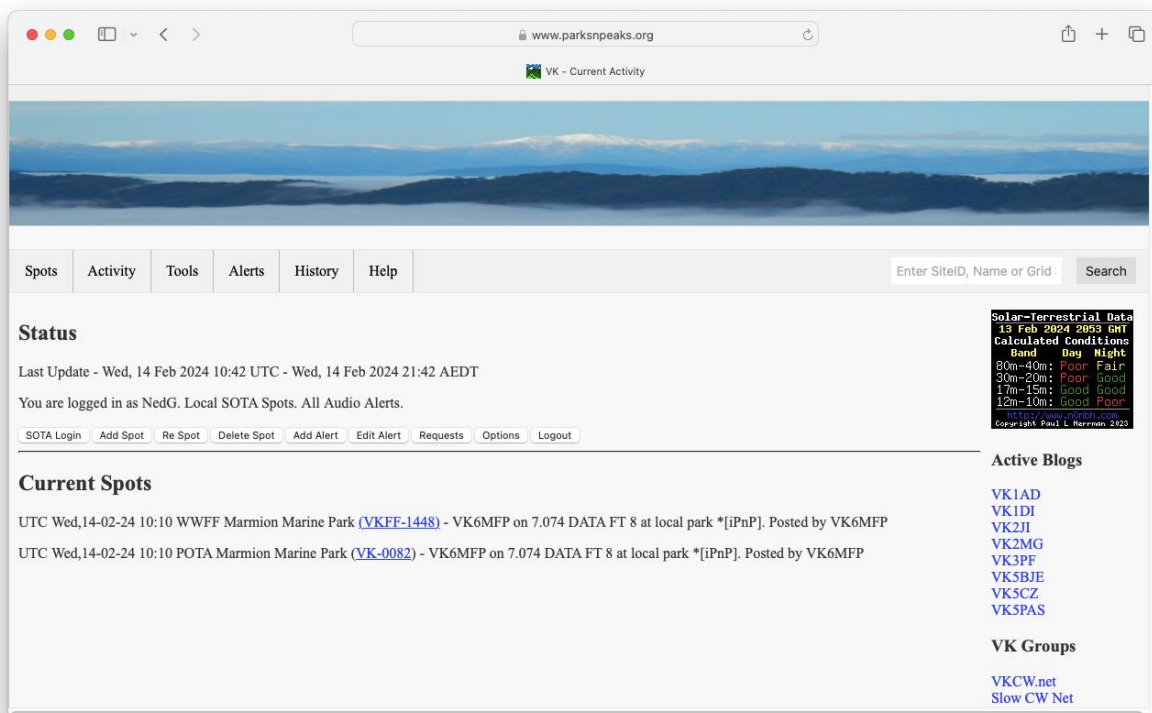
## The easy way to find Mal VK3OAK when he activates a Park.

Contributed by, Peter VK3PWG

The two simplest ways to find Parks or SOTA activators is to use Parks'n'Peaks web site - [https:// www.parksnpeaks.org/](https://www.parksnpeaks.org/)

This shows current activations as "spots", when an activator first gets set-up, they will put up a spot, when another operator makes a contact, they too can put up a further spot, this shows quite a lot of information, but most importantly the band, frequency and mode. You are not compelled to put a spot; however, it is very helpful to other Hunters, especially Park to Park operators.

It's wise to register on this site and that will ensure you get the most out of it.



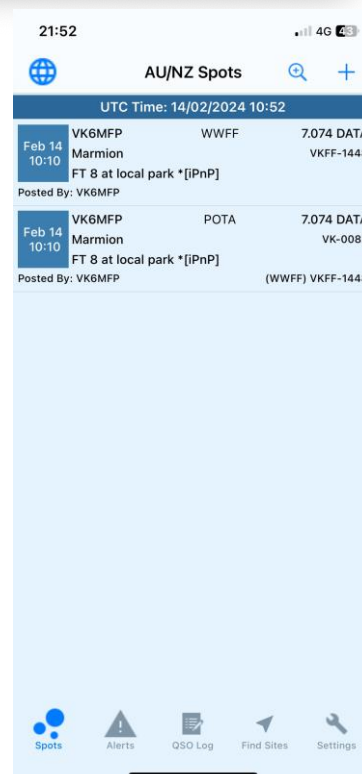
The other option is to download an iPhone app written by Sue VK5AYL, which does just about everything that you need including logging, I won't go into detail here. Best thing to do is down load it . . . it's FREE (which suits amateurs) . . . just search Parks'n'Peaks in the app store and download it. Start playing around with it and you'll soon pick it up.

This is very brief, however both of these are very easy once you start poking around, so you will soon get used to it. These are only two windows of both apps and due to the time frame when I saved them there are only two spots, but that can be filled with spots on a bust day.

You will see that Spots continually pop up, which will alert you to an activator, then you can join the pile-up, so good luck. One thing I should warn you about is the Kookaburra and the Goat, I'll leave you to find out about them.

Generally, if I'm in the shack, I'll have my PC running with the Parks'n'Peaks site open and they just keep rolling through.

Time permitting, at the next club meeting I'll put it on the screen in the club rooms. Cheers.. Peter VK3PWG





## Where were you during the BARG 2024 Hamvention?

Pete VK3HEX, in Rodrigues Island (3B9), Africa doing some work for the government (in Mauritius also).

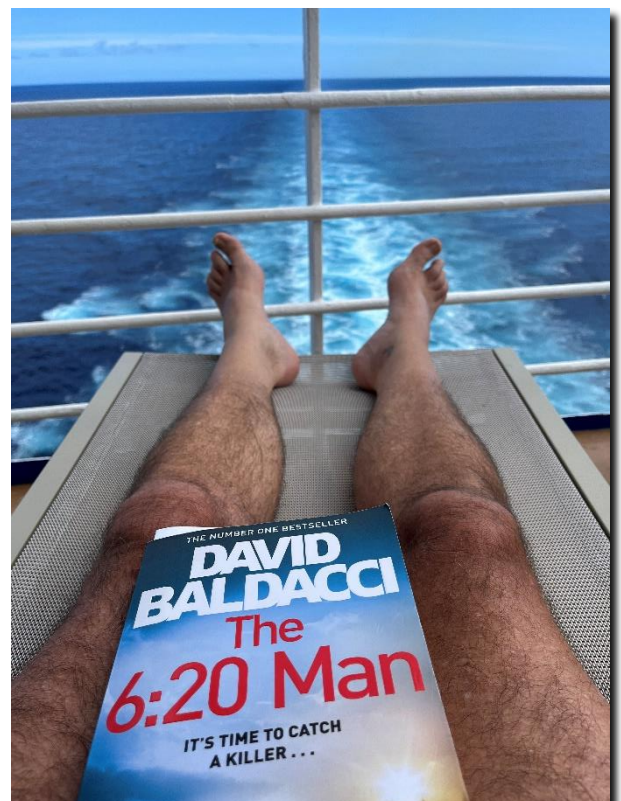
I caught up with a local HAM (the only one on the island) and thought I'd share some pictures...

Regards, Pete VK3HEX



Terry VK3UP, was on the Grand Princess for a two-week cruise to Noumea and Fiji.

Sent from my iPhone on 15 Feb 2024,  
Cheers Terry VK3UP.



# What is IOTA, SOTA, POTA, WWFF, ARDF, ILLW, GMA, JOTA and COTA?

## **IOTA - ISLANDS ON THE AIR**

The origin of the probably best known of all current amateur radio diploma programmes is IOTA, Islands on the Air.

The aim is to promote worldwide radio operation with amateur radio stations on inhabited and uninhabited islands with the help of the competition idea. As with many other activity programmes, participation in the IOTA programme is possible in two ways. As a so-called "chaser", one collects the island points, the "activator" on the island operates the station and thus makes these contacts possible. <https://www.iota-world.org/>



## **SOTA - SUMMITS ON THE AIR**

The SOTA programme was founded in March 2002 by radio amateurs in England and Wales. "Summits on the Air" loosely translated means "mountain tops on the air" and is another successful amateur radio diploma programme, which aims as a kind of radio sport at radioing from mountain tops, operating portable transmitting and receiving equipment, antennas and power supplies.

A more or less athletic workload, ranging from leisurely mountain hiking to challenging mountaineering, is required before successful radio communications from lofty heights.

<https://www.sota.org.uk/>



## **POTA - PARKS ON THE AIR**

Parks on the Air" is an amateur radio activity in the form of many small "field-days", where radio amateurs with portable amateur radio equipment go on the air in publicly accessible parks and establish worldwide radio contacts from there. In this outdoor variant, too, the attraction lies in combining the hobby of amateur radio with an outdoor activity.

POTA in particular is easy to activate and also suitable for older and less athletically ambitious participants. In the context of a family outing, POTA is probably the most family-friendly outdoor amateur radio, in which the whole family can participate, and everyone can pursue other interests beyond amateur radio.

<https://parksontheair.com/>





## WWFF - WORLD WIDE FLORA FAUNA

The WWFF grew out of the Russian WWF diploma and is essentially the same as the activities of the POTA programme. Here, too, participants can choose between participating as activators or hunters.



The activator sits in the wild at the station in a national or nature park, while the hunters try to reach the activators' stations from random locations. This often leads to uncontrollable pileups, mainly of Eastern European stations.

<https://wwff.co/>

## ARDF - AMATEUR RADIO DIRECTION FINDING

Amateur radio direction finding, also called "fox hunting", is not directly related to making radio contacts, but to listening to radio signals - but it is the pure sporting outdoor experience.



This radio sport requires a unique combination of physical fitness, sense of direction and technical understanding. Amateur radio direction finding - known internationally as ARDF (Amateur Radio Direction Finding) - involves finding transmitters hidden in the forest on the 80 or 2 m band in the shortest possible time with the help of a direction finder, map and compass.

<https://ardf.org.au/>

## ILLW – INTERNATIONAL LIGHTHOUSE AND LIGHTSHIP WEEKEND

The International Lighthouse and Lightship Weekend is held annually on the third weekend in August. Its origin was the Northern Lighthouse Award Weekend held in Scotland every two years since 1993.



The Scottish Ayr Radio Group (AARG), around John Forsyth and Mike Dalrymple, founded the present International Lighthouse Lightship Weekend (ILLW) in 1998, in which more than 95 countries worldwide now participate. The organisation and management of the ILLW is currently the responsibility of the Australian radio amateur Kevin Mulcahy, VK2CE, who is also in charge of the website set up for it.

<https://www.illw.net/>

## GMA – GLOBAL MOUNTAIN ACTIVITY

Since the beginning of 2009, the SOTA management team has removed a large number of mountains from the German SOTA programme that did not comply with the general set of rules. These and numerous other mountains that do not meet the SOTA criteria have been included in the



GMA - Global Mountain Activity (formerly German Mountain Award, Deutscher Bergwettbewerb).  
<https://www.cqgma.org/>

## JOTA - JAMBOREE ON THE AIR

When you hear the general call "CQ Jamboree", you have the opportunity to learn more about the Scouts first hand in a QSO with one of these stations. The JOTA is a worldwide gathering of Scouts on the amateur radio bands. However, it is not a contest.



The topics of conversation should mainly be about the work, life and getting to know each other of the scout groups. The decisive factor is not the number of radio connections, but the intensity of the exchange of information. The aim is not necessarily DX connections, which are always kept quite short anyway. Already inner-European connections with the immediate neighbouring countries are likely to be much more interesting, especially if they are longer radio conversations with a lot of information exchange.

<https://www.jotajoti.info/jota>

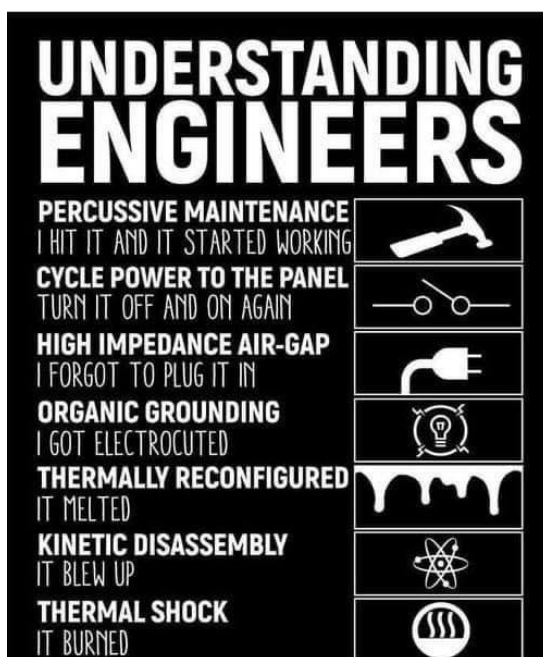
## COTA - CASTLES ON THE AIR

This variation of outdoor radio activities takes a more leisurely approach and is particularly suitable for involving the family for a day out. Instead of extensive hikes and strenuous scrambling on the mountain, you can set other accents besides radio operation.



To promote and activate amateur radio operation of German castles and palaces, the COTA Group Germany together with the DARC local association Stifftland, U23, issues the COTA Diploma.

<https://www.cotagroup.org/cotagroup/cota-team/dl-wca/>





# **BARG Coffee** **Mornings**

Come out for a chat, coffee, snack, and solve the world's problems all in a morning.



**Every Thursday at 10 am**  
**Food Seduction on Doveton**  
**524 Doveton St Nth**  
**Soldiers Hill**

(The old Gove Bike Shop)

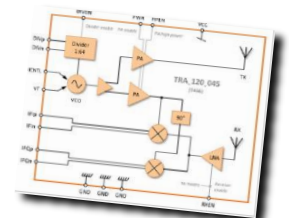
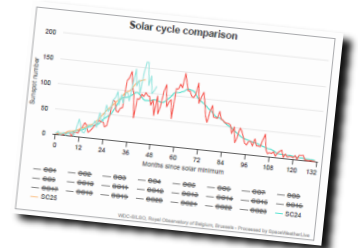
One atom says to the other, "I'm missing an electron".  
"Are you sure?"  
"I'm positive."

George Washington and his father used Morse code!  
When young George chopped down the cherry tree his father asked "Who di-dit?"  
George replied "I di-dit da-dah"

## Magazine Reviews

### Amateur Radio Vol 92, No 1 2024 Review

- P9 Contents
- P4 Editorial. Roger VK2ZRH. AR on display in newsagents, showing this print format is not dead and gone, a caution that AI has been used in AR production and that the ITU Secretary-General is an amateur radio operator.
- P5 Board Comment. Peter VK8ZZ. Class licensing is becoming a reality on 16<sup>th</sup> Feb 2024, a brief note on how it is going to be implemented and Assessor, Club, and Repeater implications.
- P6 WIA News. Solar Cycle comparison, Bundaberg WIA AGM 2024, some new battery technology, and World Amateur Radio Day.
- P8 Part 1 of WRC-23. Dale VK1DSH and Peter VK2EMR. The event in Dubai, covering various reports on the amateur spectrum, microwave frequencies in particular.
- P12 Of Lobes and Dishes. George VK3EIP. A discussion on the lobes of parabolic dish antennas. Some interesting history, maths, and some practical measurements to support some predictions.
- P18 Pioneering Women in Amateur Radio. Jennifer VK3WQ, VK5ANE, ALARA Historian. A fine article on YL/XYL contribution to AR magazine and many aspects of this hobby from way back in the first October 1933 edition of this magazine.
- P21 A Tasmanian Telegraphy, Telephony and Wireless Pioneer. A man of his time – the life and works of 'Pop' Medhurst VK7AH. Justin VK7TW. A very enjoyable history of VK7AH along with a collection of photographs depicting his life and activities in the amateur world and Tasmanian infrastructure. Along with the establishment of the WIA Tasmanian Division in its formative years.
- P27 Ditch the Old ways, do it differently. How can amateurs market amateur radio to others? Phil VK2ASD. A good question and some interesting answers to the marketing of amateur radio and the different strategies for different demographics, interests and backgrounds.
- P32 Join the action on the 2mm bands. Part 1. Andrew VK3CV, WQ1S. A transverter for 122 and 134 GHz bands, beginning of design and construction of this new Indie Semiconductor TRA\_120\_045 transceiver IC from Germany.
- P41 Homebrew three-band 100W HF transceiver. Part 2. Lou VK3AQZ's fine article, in a series on design and construction of a well set out and documented HF rig. This part shows the final power amplifier, ALC and SWR circuits.
- P48 Listening In. Rob VK3BRS. Some maritime history and the frequencies used for maritime communications in this modern world.





- P50 Book Review. Henry Sutton, The Innovative Man. Tom VK3DMK  
Bruce VK3WL. A look at a book written by the great  
granddaughter of a very little known Australian inventor and  
innovator in the era of Tesla, Bell, Edison and Marconi. Locating  
and utilising a wealth of early documentation has helped to  
uncover this man who made many advances here in VK in  
parallel or even before the great men in the rest of the world.
- P52 Below 25. Alec VK2MV. A review of Scouts Australia-wide  
Jamboree on the Air 2023, state activities with pictures of the many  
participants.
- P54 WestNews. Will VK6UU. VHF-UHF Beacons in Western Australia  
– past, present, and future. A story of the development and  
continuing growth of beacons in VK6, and their diverse locations.
- P56 Contest Champion changes for 2024. Alan VK4SN. Changes to the  
rules to simplify and make fairer the scoring system have been made and this article  
points out the changes.
- P58 2023 Remembrance Day Contest. Alan VK4SN. Results and  
comments on locations and rigs used for this important event.
- P61 ALARA. Jenny VK3WQ. A report on the Hobart ALARAmeeet,  
meetings, tours and highlights of the event.
- P64 WIA DX Awards. Marc VK3OHM/VK3IP. Tables of results from  
DXCC, Antarctic, Oceania, and Worked All States VHF.



## **AMATEURS OLD TIMERS CLUB of AUSTRALIA News**

Volume 73 of March 2024.

Review by; Member no 931 Craig VK3KG

Published now twice yearly to members, the criterion for membership is :

FULL MEMBER if you have held or were qualified to have held an  
Amateur Licence for a minimum of 25 years.

ASSOCIATE member if held or been qualified to hold a licence for 10  
years.

Contact via PO Box 107, Mentone 3194 or [raotc@raotc.org.au](mailto:raotc@raotc.org.au)

When taken as a whole it fits in with other stories of days gone  
by and shows how many activities bear witness to the changes that  
we all have experienced in the amateur area as well as where we fit in the  
modern-day society.

It may not appear important to jot down a memory of what you currently know and  
remember but when we are no longer able to talk about our history and how we were part  
of any particular activity, however trivial it may be to you today, in tomorrow's world when  
someone wants to look back and see how something was developed or happened there  
may be nothing recorded and things can get glossed over or more truthfully some facts  
tarnish with time and facts get altered.

Contrary to what some may believe in destroying the history, it is better to ensure its  
documented and then it's a basis upon which the present is constructed. Reading some of  
the early articles in the OTN journal [and copies are available on DVD and FLASH drives]  
as well it is interesting to see how Australian amateurs once leaders in science  
experimentation of radio.



In this March edition we have: The annual report of RAOTC A for 2022-2023 were the year finished with 479 financial members.

Membership increased BY 13 NEW MEMBERS HOWEVER there were 5 ne Silent Keys recorded in the period.

P7 Who dropped this Morse Key. By Herman VK2IXV is about a 1945 made "bent " key by Paul DOW who believed a natural position for the hand was a slight [30 degree] tilt to the right. The key is an BUG key similar to the well-known Western Union Vibroplex bug key. There two very excellent B/W photos of the key. One is a chrome finish, and the other is made of brass.

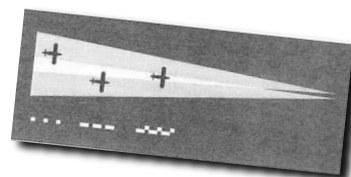


P9. Australia's First Radio Beacon was opened at Mascot airport in 1936 by the Minister of Defence Sir Archdale Parkhill. Initially the beacon was known as Aural Radio Range Beacon and allowed the pilot approach from out of 200miles without any visual contact.



The antenna transmitted in four distinct directions and there were two very sharp beams keyed with a morse ID that allowed pilot to fly straight along the path where they both cancelled out and gave a constant audio tone. Flying to the left of the approach path there was the sound of three dits [S] given continually and to far the right was the signal of three dahs [O] but if flying exactly on the approach line the two equal level sigs were added together and gave a constant sound tone.

This signal could also be utilized by the aircraft to ascertain their position and direction towards the airport and also to ascertain their distance from the beacon . The Beacon could be used out to a range of 200miles from the airport. A photo shows the setup with what looks like a duplicate unit and was rated at 250Watts operating in the 950m to 1050m band. The antenna used loops T around 65 ft and were 220ft long.



P11 My Radio Life. By member Tim VK3YBP. Tim started to record his involvement and history Television linked there in during its time on earth. Audio amps followed and then amateur radio thru membership at Camberwell Grammar radio club and the Youth Radio scheme under the guidance of Rex Black VK2YA of the WIA.



Amateur radio followed in 1969 and involvement with the Lord Somers camps and the operation and maintenance of their PA and music playing facilities all makes for an interesting read. This especially so if you once attended any of these youth camps. The camp had been used during WW2 as a training base for air crew and on reversion there were four 35mm arc projectors left behind as well as an antiquated PA system.

Tim discusses the audio side but unfortunately [for anyone with projection background] the story on and subsequent disposals of these are very scant. Who wants a carbon arc projector in the room with all those horrible gases and fumes to be disposed of. Not to mention the size of the projector and accessories. The paper is very large and then covers his experiences in higher level studies at Swinburn and then involved with Melbourne University in attempt to gain an FM broadcast licence for technical education.





I too was involved at this time competing for the one and only special FM educational licence offered by the then Whitlam government when a number of bodies did test broadcasts to shake out their tech problems and attempt to set up a suitable programming style and content. Listening to the content and quality from some left a lot to be desired, especially language and innuendo which was very tighter than today's broadcast industry allows. Maybe some more on this later. CC.

While this article jumps about on the time scale it's a great package and descriptor of what was happening back in the 1970's and Tim mentions many a thing or activity that evokes a return to where the reader was then. Many names in the amateur service are given and the activities they performed brings the reader back to those days. The use of vacuum valves [tubes for some] are heavy in use.



Memories of my times at 3DB/LK are evoked by mention [and a photograph] of the bulky BYER 66 tape recorders. We had the BYER 77 models, and they were the workhorse of the industry back then in the 1960's apart from the Tanberg and the reporters personal recorders like Nagasaki .

Further reading at <https://artmediaservices.com.au>

P27 Lists all the members of the RAOTC club.

P30 Five Wireless Stations on the One Ship by Tim VK3YBP.

Another article from Tim about the Motor Vessell (MV) Kanimbla Built in 1936 for the Australian run it saw mixed service in its time and during WW2 was an armed merchant carrier and seconded to the Royal Navy for the duration. At cessation shed had captured 22 enemy ships, and also steamed more than 470,000 miles a record for any ship flying the white ensign. Returned to her owners in Mar 1949 and renamed the Oriental Queen until 1973 when she was broken up for scrap.



Her story covers the use of broadcasting from the sea with different programs.

All radio equipment was built in Australia by AWA and shipped to Belfast for inclusion with the broadcast station 9MI facility and a 1.5KW transmitter capable of use between 20 and 50 metres.

Among the crew was Miss Eileen FOLEY from Sydney who would be the stations announcer. A series of loudspeakers would broadcast about the ship as well as capable to broadcast to the mainland as well.

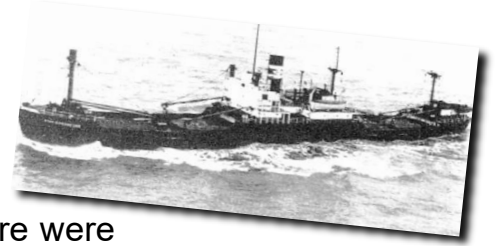
A copy of the ships QSL card is shown as well as the Main transmitter cabinet , the announcers' position and the operators



set up. A great read about an Australian first in maritime broadcasting, and something that may have influenced the offshore "pirate radio" concept some thirty years later.

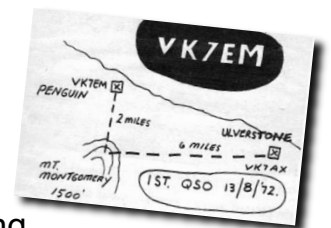
P34 How to stay Safe on the Internet. By Ian VK5ZBI. This short paper is very interesting a good read for all that dare to connect a computer to the outside world. Be great if we didn't have to open up our personal pads to the rest of the world.! Ian discusses a number of scenarios and offers three Lessons for readers to adapt to.

P38 Liberty ships and Junker Keys by Herman VK2IKV. Prompted by an earlier article by Bill Roper VK3BR on the Liberty ships Herman talks about his own Juncker style morse key and their use in the liberty ships.



Named by President Roosevelt to provide liberty and freedom to a besieged Britain during WW2 there were hundreds constructed for the Atlantic run with supplies for a beseeched country. Herman knows them well as he sailed in 1961-62 as radio officer on PHRD the SS Stad Dordrecht. He describes the radio shack as a mix of equipment and decorated shack by a previous officer with camels from cigarette packets. The standby was a very powerful spark transmitter only to be used in an emergency, however a good op should always test and shake out the cobwebs before sailing. This was a very healthy rig. Here now was where the key comes in. There were two. One on each transmitter and they were both a Junker DRP model.

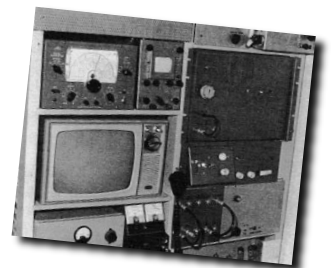
P41 My Amateur Television Life. Winston VK7EM continues with his articles on ATV from VK7.



Living on the coast at Penguin, Winston was a very sought-after contact on 426.25 MHz back in the 70's as the TV signals were being generated in Melbourne and country areas.

Gaining a licence in 1964 in Burnie he worked at ABC TV Moving to Penguin later he was a rare contact in VK7 then.

Back then we had to apply for permission to transmit TV signals and on registration you added the suffix T after the callsign. Winston became VK7EM/T although later on some stations just ignored that regulation and transmitted picture and intercarrier sound anyway. Regulations did set the lowest band that could be used as the 70 cm band and 426.25 was the general simplex frequency chosen for Vestigial sideband. Later a second band plan showed 444.25 as the second ATV channel in the band. With interest growing in Melbourne an ATV repeater was considered in the band and used these two channel frequencies above.



The ACMA also opened the 50cm band portion for a while to ATV's until taken over for the newly forming Community TV station allocations. The Melbourne ATV group started looking at colour TV and soon digital tv was being used by operators. A move to 23 cm and about 20Watts saw a repeater there by Peter VK3BFG. The annual ATV QSO party was ALWAYS ENJOYED BY Winston and others. Some activities from

P44 Leading Lights and Bright Sparks by Peter VK3RV WIA Historian. This was based on a lecture to OT at the Sept 2023 Luncheon in Melbourne.

Starting in 1854 when electricity used to power a telegraphy circuit between Melbourne and Williamstown. In 1900 a telegram sent to E W Francis from a portable radio station near Doncaster by W.H. (Walter) Jenvey. Jenvey is known for his work in contacting the Royal Navy escort bringing the Prince of Wales to Australia for our Federation celebrations.

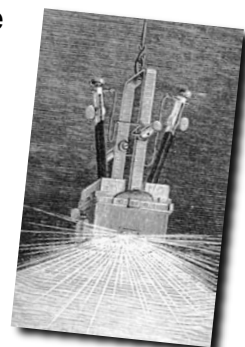


Jenvey also experimented with the magnetic wire recorders. This telegram is possibly the first of the future QSL being sent after a contact is concluded between amateurs. Reading further the address discusses the electric lighting generated by the Melbourne City council which became the fore runner of the State Electricity Commission SECV. As Melbourne was laid out on a grid system by surveyor Hoddle the lighting system became easy to install and soon the 4,100 houses were electrified and had street lighting.

Melbourne City Council used a mix of gas and electric to light the city area but in Mar 1891 the MCC appointed Mr A J Arnot as the first electrical engineer. And he commissioned the councils electric power station in Spencer Street. This was Victoria's and Australia's first major municipal power station.

Originally this system was a DC only supply but in 1895 the preferred power was delivered as an AC voltage.

Later Arnott resigned and H R Harper appointed as MCC Electrical Engineer and under him a number of changes were made. There are some excellent clear photographs of our early power generation systems included. Peter's article will continue in the Sept edition of this magazine.



Back cover advertises the RAOTN Luncheon to be held on 21st March at the Caulfield RSL starting at 1200 noon.

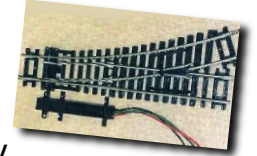
A talk by Mike VKj3BDL on his holidaying DXing in foreign countries and how the CEPT qualification assists. He will also discuss FT8 and the different attitudes to portable operations.

## **Silicon Chip February 2024 Review**

- P14 Data Storage Systems. Beginning with punch cards and core memory, the history of methods of storing your valuable data. Paper tape to the Commodore Datasette, covering calculators, DVD and Blue-ray, how mainframe and home computers stored their info.
- P28 Microphone Preamplifier. Running from a plug-pack with switchable phantom power and gain, this amplifier provides a flat frequency response and has input, output and power supply protection.
- P43 Circuit Notebook. Latching relay toggle circuit, DHT22 based temperature/humidity chart display, Isolated mains voltage and current monitor, ESP32-based AI ChatGPT terminal, WiFi Night Light using a simple circuit, LED-based motion sensor.
- P48 Mains Power-Up Sequencer. Part 1. A device to allow you to power up several devices in sequence to avoid overloads, audio thumps on an amplifier system, computer systems.
- P60 WiFi Camera Module, Altronics' Z6387 ESP32. Using the ESP32-CAM module this article describes construction of a WiFi camera with Bluetooth and Webserver software.



- P68 Electronics Markets in Singapore. Sim Lim Tower & Square. A tour through on of the major SE Asian electronic precincts, featuring photographs and descriptions of some of the gadgets and gear on sale.
- P72 Raspberry Pi Clock Radio. Part 2. The assembly and testing of the clock and it various functions.
- P83 Points Controller for Model Railways. Adding and automating point and signal switching with a microcontroller, PIC16F1455-1/P.
- P94 Serviceman's Log. What we do for our pets. Repairing a Whirlpool washing machine. The clock was running fast.
- P100 Product Showcase. High-performance silicon carbide (SiC) Schottky diodes from Queensland. Griffith University and Queensland Semiconductor Technology Pty Ltd are manufacturing Schottky diodes in response to the increasing market of these semiconductors in power management applications.
- P104 Vintage Radio. STC Radiotym Model 5160, from 1956. A stylistically different, for the era, clock radio. Using a mains synchronous motor to keep the mechanical time piece going, a couple of switches integrated into the design facilitate a basic radio alarm system. It was a five valve design, one rectifier valve and four RF/AF devices.



## **DIYODE February 2024 Review**

- P8 New and Review. Battery Powered QUAD Claw Robotic Arm KIT, IRFI Power MOSFETS, 3.6V AA FAT SIZE LITHIUM-THIONYL Chloride Batteries, Anti-Static Glass & Surface Cleaner 500G Aerosol, Alligator to Pin Jumper Leads.
- P12 DIY Robotics Wheel an Alternative to DC Geared Motors. A battery-operated motorised wheel for robotics made using a Drone motor. A design that replaces the cheap DC geared motors and wheel that is currently available. Utilising a small drone motor and the existing DC motor tyre to make a versatile BLDC drive.
- P20 Good Start; When positioning Stepper Motors identifying the Zero position is critical. The basics of homing and controlling a stepper motor to provide an initial start point when you boot up your code.
- P29 AirTag Hacking. An article on Apple's AirTag technology that allows you to track your tagged item across the world with Apple's network and how you can benefit from these new devices.
- P46 DIY Blaster. Styled on the historical blasting machine that many know well from movies and cartoons, this project uses an internal generator to make electricity, and use it to send a controlled digital high signal to a microcontroller. It can be used for anything from turning on a lighting display, as a prop in a movie or as an objective in a game like paintball or Nerf tournaments, or to just relive your Looney Tunes childhood!

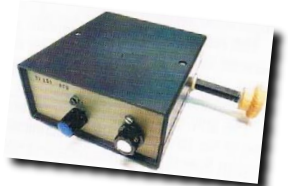


- P62 DIY Filament Dry Box. To avoid failed 3D prints and clogged printer nozzles, it is important to keep your filament in a safe and dry environment. There are commercially available devices to help maintain your filament, or you can build your own as described in this article.
- P68 Let There Be Light, Part 3. The continuation of automated shutters with ESP32 control, describes the code and remote-control setup.



## **SPRAT** The Journal of the G-QRP Club **Winter 2023/2024 Review**

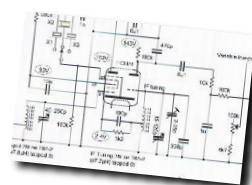
- P3 Coloured Enamel Copper Wire. G0POY. The advantage of using different coloured enamelled wire in homebrew construction goes without saying. However, there are catches to where you buy it. Interesting simple test results.
- P4 Yet Another Magnetic Loop Antenna. EI7CLB. An indoor HF loop for people living in “heritage” areas for 40m and 20m with some WSPR responses.
- P7 Simple “No Cost” T-Match. DF2OF. Good for 40M to 10M, a quick rewire of a previous SPRAT Pi Match from G4LDY. Uses a sliding ferrite rod for variable inductance as well as two 250pF variable caps.
- P8 My Little Mate for 10MHz. G0FUW. A 10MHz version of Drew Diamonds “Little Mate” transceiver, modified circuits for the 30M band operation, from the original 40M and 80M circuits. The transceiver uses NE602, uA741 and LM380 in the receiver area with KANK3334 coils, and winding instructions for the TX LP filter.
- P10 Knobs for trimmer potentiometers. G4UMB. If you like to keep your QRP gear small, then using full sized potentiometers tends to negate the effort. Here is a fix that allows the use of trimmer type resistors with homebrew knobs ideal for their size.
- P11 Simple pole to fence/wall attachment. OZ1DTF. Using a trailer nosewheel clamp to make a quick connect to fence post or wall.
- P12 Simulating with real audio in LTSpice. PA3COR. Using Spice circuit simulator to design audio filters to tailor your SSB and CW reception.
- P15 Solderless Breadboard Wire Stripper. G0POY. Modifying a pair of nail clippers to strip jumper wires for your breadboard creations.
- P17 CQ-DL DL-QRP Meeting/Treffen 2024. DK4NQ. Announcement of the DL-QRP meeting on April 26<sup>th</sup> to 28<sup>th</sup> 2024, including practical lectures.
- P18 EAT32-RX. G4HOJ. Experimental Ancient Technology, 3 Band, 2 Valve Receiver. A superhet receiver using ECH81 and 12AX7 to give a speaker level output. Tuning from 3.4MHz to 8MHz needing a 200Vdc and 6.3Vac supply, this is a continually evolving receiver.





P21 Club Sales. Adrian M1LCR, Lewis G4YTN, Steve G7JHU, and Dan M7JJU join Graham G3MFJ as the new sales team with Roy GM4VKK joining them for rally sales.

P22 The BFR106 RF Amp Circuit. Pete N6QW. Adding an RF receiver amplifier using a BFR106 to the "Shirt Pocket" sized SSB transceiver.



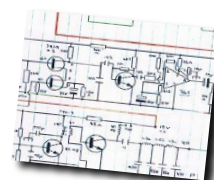
P24 QRP Upgrades – A Brace of Pennteks. Richard M0RGM. A search to upgrade to later QRP rigs, Richard arrives at Penntek TR-35 lightweight QRP rig. Four Band with up to 6W output. Then acquires another Penntek, this time TR-45 model, a five band unit and remarks on the performance of both.



P26 G-QRP Convention 2023. Vic GW4JUN, Lee G4EJB. Held with the Telford and District Amateur Radio Club, a comprehensive report on a very popular event on the UK amateur radio calendar. The G-QRP stall and various presentations.



P29 My Version of the SCD Project. Gary G0WTL. Modifications to a SPRAT article using a pair of 2N3819's instead of the dual gate 40673.



P30 De-Bounce Switches – Software Defined. M0YTT. Programming de-bounce procedures for microcontrollers, in this case the ATmega328.

P32 Band Activity Report. Enzo M0KTZ. The lineup for 2024 of events on the amateur radio calendar in the QRP world.

P35 Member's News. Chris G4BUE. Reports from members with images of their activities, including QSO's and portable operation from all over the world. A very interesting read with many different operations using a variety of transceivers, antennas and in many locations.



BackPage. G-QRP Club Sales, price list.

## Back Copies of BARG inc. Newsletters

There are available on the BARG website scanned copies of old BARG Newsletters.  
<https://www.barg.org.au/>

Colin VK3NCC with the copies supplied by Craig VK3KG has been scanning them and adding to the collection on the website.

Great job....

